REMARKS

Claims 1-22 will be pending upon entry of the present amendment. Claims 8-12 were allowed. Claims 21-22 are new. No new matter is being presented.

The applicant appreciates the indication that claims 3-4 and 15-16 are directed to allowable subject matter. Claims 3-4 and 15-16 are not being placed in independent form because the applicant respectively submits that claims 1 and 13, from which claims 3-4 and 15-16 respectively depend, are in condition for allowance as explained below.

One embodiment of the present invention is a device 13 that measures the relative angular position of first and second bodies 11, 12 relative to a point 16 as shown in Figures 3-4. The device 13 includes first and second inclination sensors 17, 18 that are respectively connected to the first and second bodies 11, 12 and provide respective inclination signals S_1, S_2 respectively correlated to first and second inclination angles α_1, α_2. That is, the first inclination sensor 17 supplies a first inclination signal S_1 correlated to a first inclination angle α_1 of a first detection axis A_1 with respect to a reference axis R. The second inclination sensor 18 supplies a second inclination signal S_2 correlated to a second inclination angle α_2 of a second detection axis A_2 with respect to the reference axis R. The device then uses the first and second inclination angles α_1, α_2 to compute the relative angle θ between the two bodies 11, 12.

Claims 1-2, 5-7, 13-14, and 17-20 were rejected under 35 U.S.C. § 102 as being anticipated by U.S. Patent No. 5,933,005 to Pugh.

Pugh does not disclose the invention recited in claim 1. In particular, Pugh does not disclose first and second inclination sensors that respectively have first and second detection axes and respectively supply first and second inclination signals respectively correlated to first and second angles of inclination. Instead, Pugh shows redundant sensors 10, 12 that measure the same, single angle of rotation of a single pivotable member 38 about a rotation axis extending through both sensors 10, 12 (See Fig. 1). There is nothing in Pugh comparable to the first and second inclination angles of claim 1 or the first and second inclination angles α_1, α_2 shown in Figure 4.

Pugh also shows a throttle position monitor in Figures 2-9 that also does not disclose the invention recited in claim 1. As shown in Figure 3, Pugh's monitor includes a

stationary sensor 70 and a moveable sensor 80 that are mounted at different positions with respect to a rotating member 50. Each of the sensors 70, 80 outputs a signal (see Fig. 6) representing the pattern of teeth 58 passing through the detection zone of the sensor as the rotating member is rotated. As such, the sensors 70, 80 do not output respective inclination signals respectively correlated to first and second inclination angles between a reference axis and first and second detection axes. Instead, an engine control unit (ECU) 302 computes a single angle Θ based on elapsed times $\Delta T_{1\text{-}2}$, $\Delta T_{1\text{-}3}$ (Fig. 6) between patterns in the pulse signals output by the sensors, as shown in the flowchart of Fig. 8.

For the foregoing reasons, claim 1 is not anticipated by Pugh.

Claims 2 and 5-7 depend on claim 1, and thus, are also not anticipated by Pugh. In addition, Pugh does not disclose the features recited in claims 6-7. In particular, claim 6 recites that a processing unit, connected to the first and second inertial sensors, has outputs supplying the first and second inclination angles respectively. Instead of plural outputs supplying first and second inclination angles respectively, the ECU 302 of Pugh is not disclosed as having even a single output (See Fig. 7). In addition, the entire purpose of Pugh is to compute the single angle Θ, and thus, there is no reason to assume that the ECU 302 would have plural outputs.

With respect to claim 7, Pugh does not disclose first and second processing lines comprising respective filtering circuits. Pugh shows lines 370, 380 respectively connecting the sensors 70, 80 to the ECU 302, but there is no mention in Pugh of any filtering circuits.

For the foregoing reasons, claims 6-7 are not anticipated by Pugh.

Although the language of claims 13-14 and 17-20 is not identical to that of claims 1-2 and 5-7, the allowability of claims 13-14 and 17-20 will be apparent in view of the above discussion.

New claims 21-22 depend on claims 13 and 1, respectively, and thus, are not anticipated by Pugh for the reasons expressed above. In addition, Pugh does not disclose the additional features recited in claims 21-22. In particular, claim 21 recites that the first and second bodies rotate with respect to one another about a rotation axis, said first inclination sensor is connected to the first body at a first position that is spaced apart from said rotation axis, and

said second inclination sensor is connected to the second body at a second position that is spaced apart from said rotation axis. The embodiment of Fig. 1 of Pugh does not disclose such spaced apart positioning of the sensors because both of the sensors 10, 12 are positioned directly on the rotation axis of the pivotable member 38. The embodiments of Figs. 2-9 do not disclose such positioning because neither of the sensors 70, 80 are connected to the rotating body 50. Instead, as discussed above, the rotating body 50 rotates with respect to the positions of the sensors 70, 80.

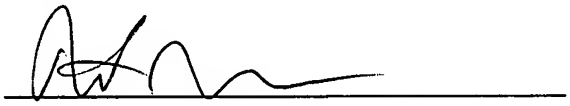
For the foregoing reasons, new claims 21-22 are not anticipated by Pugh.

The Director is authorized to charge any additional fees due by way of this Amendment, or credit any overpayment, to our Deposit Account No. 19-1090.

All of the claims remaining in the application are now clearly allowable. Favorable consideration and a Notice of Allowance are earnestly solicited.

Respectfully submitted,

SEED Intellectual Property Law Group PLLC



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